

Attorney Docket No. P13578-US2

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A method for increasing the spectral efficiency of a wireless telecommunications system within a cell, said method comprising the steps of:

dividing a plurality of channels within [[a]] the cell of said wireless telecommunications system into a plurality of logical groups for the cell;

mapping a first group of said plurality of logical groups onto a first plurality of radio resources within the cell; and

mapping at least one other group of said plurality of logical groups for the cell onto a second plurality of radio resources within the cell, at least one radio resource in said second plurality of radio resources corresponding to at least one radio resource in said first plurality of radio resources.

2. (Original) The method according to claim 1, wherein each of said plurality of logical groups has a different radio frequency hopping sequence.

3. (Original) The method according to claim 1, wherein each of said plurality of logical groups has a different training sequence.

4. (Original) The method according to claim 1, wherein each of said plurality of logical groups being spatial separated.

5. (Original) The method according to claim 1, wherein said first plurality of radio resources and said second plurality of radio resources are substantially the same.

6. (Original) The method according to claim 1, further comprising the step of:

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enforcing silence on an interfering channel within said plurality of logical groups.

7. (Original) The method according to claim 6, wherein said step of enforcing silence is based on a quality of service (QoS) measure.

8. (Original) The method according to claim 1, wherein a timing offset is applied between said plurality of logical groups mapped onto said plurality of radio resources.

9. (Original) The method according to claim 1, wherein said steps of mapping said first group and mapping said at least one other group are performed according to a communication measure.

10. (Original) The method according to claims 9, wherein said communication measure is selected from the group consisting of:

current load in said plurality of logical groups, prevailing quality of active service sessions, Quality-of-Service requirements of service sessions, directions of users with respect to a base station, distance of users from a base station, path loss of users from a base station, users received signal strengths, geographical distance from users to a cell border, radio distance from users to a cell border and any combination of communication measures.

11. (Currently Amended) A wireless telecommunications system for increasing the spectral efficiency of a cell within a wireless telecommunications system, said system comprising:

a divider for dividing a plurality of channels within a cell of said wireless telecommunications system into a plurality of logical groups for the cell; and

mapping means for mapping said plurality of logical groups onto a plurality of radio resources for the cell.

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12. (Original) The system according to claim 11, wherein said mapping means comprises flexibly mapping said plurality of logical groups onto said plurality of radio resources.

13. (Original) The system according to claim 11, further comprising implementing means for implementing different radio frequency hopping sequences in each of said plurality of logical groups.

14. (Original) The system according to claim 11, further comprising means for using different training sequences in each of said plurality of logical groups.

a) 15. (Original) The system according to claim 11, further comprising separating means for spatially separating said plurality of logical groups.

16. (Original) The system according to claim 11, further comprising silencing means for enforcing silence for an interfering channel.

17. (Original) The system according to claim 16, wherein said silencing means comprises enforcing silence on a user based on a quality of service (QoS) measure.

18. (Original) The system according to claim 11, further comprising offset means for applying a time offset between said plurality of logical groups mapped on said plurality of radio resources.

19. (Original) The system according to claim 11, further comprising determining means for determining a communication measure used to aid said mapping means in mapping said plurality of logical groups onto said plurality of radio resources efficiently, thereby maximizing the performance of the system.
